

ENVIRONMENTAL PERFORMANCE ENHANCEMENT PROGRAMME AS AN ENVIRONMENTAL MANAGEMENT INSTRUMENT FOR INDUSTRIAL ENTERPRISES

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ABSTRACT

The present paper discusses Environmental Performance Enhancement Programmes (EPEPs). EPEPs are mandatory for installations with negative environmental impact, which are enlisted as sites for the implementation of Best Available Techniques (BATs) but do not comply with current BAT requirements. EPEP here is regarded as a potential element of the Environmental Management System (EMS) of industrial enterprises in the Russian Federation.

The research considers EMSs of industrial enterprises that undertake economic activities within the scope of BATs. They are similar to so called Integrated Pollution Prevention and Control installations functioning in the European Union and regulated on the basis of the BAT concept.

The research focuses on and analyses legislative acts, documents within the framework of the national system for standardisation, and EPEPs that are drafted by practitioners.

The need for such analysis grows from a demand of economic entities in industrial sector for both guidance and expertise as they transfer towards BAT-based technological regulation. Regulatory mechanisms and patterns, which have been introduced in recent years, are unprecedented in Russia, and several uncertainties and gaps are revealed in legal procedures. Elimination of these uncertainties of the federal legislation may take a considerable amount of time.

A practical outcome of this work is a possibility to draw out conclusions and recommendations for Russian practitioners to use in drafting documents of an in-house EMS and to overcome existing legislative and regulatory gaps in general.

Keywords: Environmental Performance Enhancement Programme, Environmental Management System, continual improvement, Best Available Techniques, Integrated Pollution Prevention and Control

INTRODUCTION

In 2014, the Russian Federation started a major transformation of environmental regulation in industrial enterprises, which urges installations with considerable negative environmental impact to obtain new type of permits [Skobelev or Begak].

As legally introduced, an Environmental Performance Enhancement Programme (EPEP) is a mandatory document. An EPEP should be drafted and implemented by corporate bodies and sole entrepreneurs that undertake economic or other activities in Category I objects unless they meet the legal requirements to claim for a new type of permitting document, an Integrated Environmental Permit [1]. The present paper discusses the role and the position of EPEPs in existing Environmental Management Systems (EMSs) of Russian industries.

Russian practitioners implement EMSs in compliance with national standards anchored to:

- ISO 14001:2015 «Environmental management systems - Requirements with guidance for use»;
- ISO 14031:2021 «Environmental management — Environmental performance evaluation»;
- ISO 9001:2015 «Quality management systems – Requirements».

According to these standards, an Environmental Management System is a part of an organization Management System (MS) that organizations use to manage their environmental aspects, to meet their environmental compliance obligations, and to address their environmental risks and opportunities. [2]

Reference Documents on Best Available Techniques (BREFs), introduced by The European Integrated Pollution Prevention and Control Bureau (EIPPCB)[3], consider creating an EMS and adhering to its principles a Best Available Technique (BAT). [4]

Standards declare the importance and significance of an EMS continual improvement to enhance environmental performance of an installation, including development and documenting of an Environmental Policy, which should be made accessible to the public.

From practical experience, Russian industries regard the implementation of EMSs as feasible, and report high results and economic sustainability of pollution prevention measures that form key instruments of an EMS to minimize environmental impact. These include technological solutions, institutional approaches on process monitoring and control, materials re-use or processing, etc. [5]

However, ISO 14001:2015 is a voluntary framework standard, which is not mandatory for industrial enterprises and doesn't enforce any coherent quantitative indicators for resource efficiency and environmental performance.

The implementation of standards on EMS in a company generally results in development and outwards demonstration of Environmental Policies; these documents are addressed to various third parties and obviously contain no quantitative criteria for setting objectives for further MS development. Experts recognize identification of environmental performance indicators as a pressing issue that needs to be resolved.[6][7] In the European Union these indicators are stated in BREFs and officially introduced by the European Commission Implementing Decisions to industries operating under Industrial Emissions Directive.

In the Russian Federation this issue is addressed through implementation of industrial environmental policy, that aims at increased resource efficiency and improved

environmental performance by setting regulations requirements on ecology efficiency of an installation (regulatory documents on environment protection - orders from the Ministry of Natural Resources and Environment of the Russian Federation, and acts of the Government of the Russian Federation, which enact BAT-related technological indicators)[8]. In the nearest future, requirements on resource efficiency will be drafted, in accordance with the Instruction from the President of the Russian Federation [9]. This will complete a national system of criteria for quantitative assessment of the very continual improvement mentioned above, which is a cornerstone for all management systems, environmental and resource ones included. Similar resource efficiency indicators are presented in BREFs as BAT-Associated Environmental Performance Levels (BAT-AELs), yet BAT-AELs are not binding (OECD Best Available Techniques Activity 3).

In Russia, BAT-related technological indicators before their legal enactment are presented in sectoral reference documents on BAT (TRD BAT or Russian BREFs). These documents contain descriptions of respective technological processes, equipment, technical means and methods, including measures to minimize negative environmental impact, reduce water and raw materials consumption, and to enhance energy efficiency.

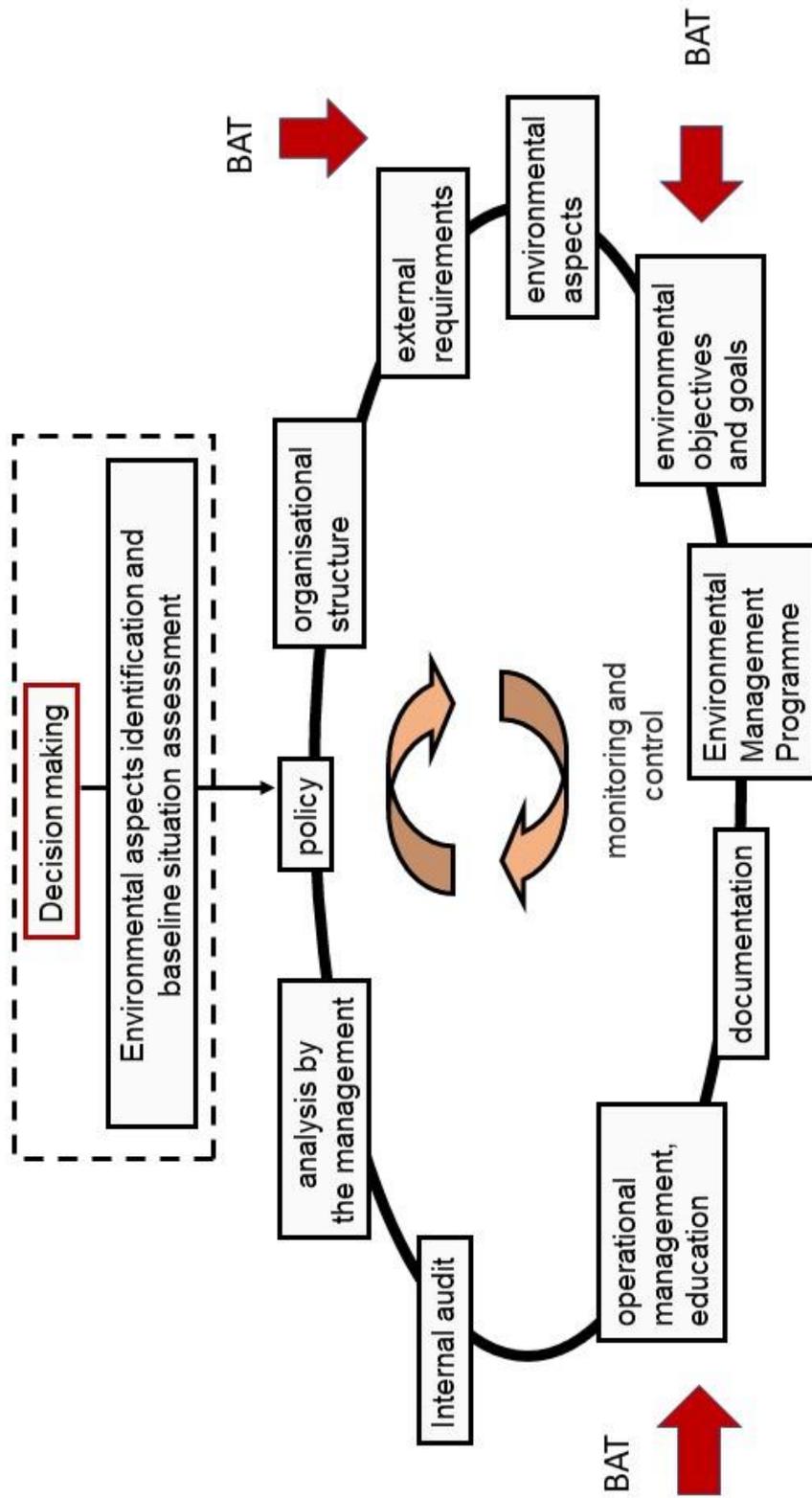
This gives EMS developers an opportunity to use clearly identified, real-life based sectoral quantitative indicators for setting EMS objectives and drafting Environmental Management Programmes that would follow trends on modernization and innovations. In terms of continual improvement approach one should aim not only at achieving sectoral indicators but strive to exceed these, since in most cases action plans suggest change of equipment, remodelling and even reconstruction of production sites. The indicators also evolve with the time being, they get more precise and strict both on domestic and international levels.

An Environmental Performance Enhancement Programme should be drafted by an enterprise unless they comply with BAT-related technological indicators. An EPEP is a unique document, which is, in fact, a treaty between a business entity and the state; the scope of this agreement is the execution of activities on production process reengineering and simultaneous mandatory reduction of negative environmental impact.

An EPEP serves as some sort of a 'road map' for remodeling a production site. It demonstrates, which techniques/solutions are planned for installation, and states expected performance levels with firmly set quantitative indicators on reduction of pollutants emissions to air and water, and waste generation.

Presumably, an industrial enterprise drafts the EPEP taking into consideration and based on the existing corporate environmental policies.

The figure below shows the sequence of actions when making decisions in the implementation of the environmental policy of the enterprise, including the modernization of industrial production and the place of the BAT concept in this process.



Prior to enactment the draft EPEP is posted on the Internet in the public domain and also undergoes an approval procedure at a specialized cross-agency commission that includes representatives of federal and regional authorities, non-governmental and expert bodies.

In the course of the approval procedure the draft EPEP is assessed to conform with BAT, this assessment is performed by independent BAT experts. BAT expert community embraces reputable and esteemed professional researchers and practitioners in respective industries. [8]

Both committee members as experts may suggest amendments to the draft EPEP and express their opinion on its feasibility.

Having applied the draft EPEP for the approval procedure, a company receives an unbiased overall estimate to the suggested remodeling plan and an expert opinion on a possibility to achieve declared performance indicators.

CONCLUSION

Documents within the Environmental Management System and an Environmental Performance Enhancement Programme stem from a different source and have different legal binding power, yet they compliment and follow each other.

Industrial enterprises develop their environmental policies, where they declare basic principles and intentions of the corporate management towards environmental and resource-related aspects, as well as major activities in environment protection and prevention of negative environmental impact.

An EPEP is drafted from the results of a self-examination in a particular production site and contains specific and detailed data on planned remodeling actions and terms, states, which pollutant emissions will be reduced, and what indicators are to be achieved by the end of the Programme implementation.

Thus, an EPEP is a clear and direct notice of intentions, declared by the enterprise within the framework of the Environmental Management System, and particularly within the scope of the Environmental Policy.

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